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# DELAWARE COLLEGE BULLETIN

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NEW SERIES

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NEWARK, DELAWARE, SEPTEMBER, 1905

## Instruction in Agriculture

AT

## DELAWARE COLLEGE.

Education and Good Farm Practice vs. Ignorance  
and Neglect in a Delaware Orchard.



Showing comparative size of Winesap apples grown on adjoining trees, sprayed and unsprayed for three years. All trees cultivated and fertilized alike. Apple on left from sprayed trees, on right from unsprayed trees.—From work of Delaware College Experiment Station.

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# COURSES IN AGRICULTURE

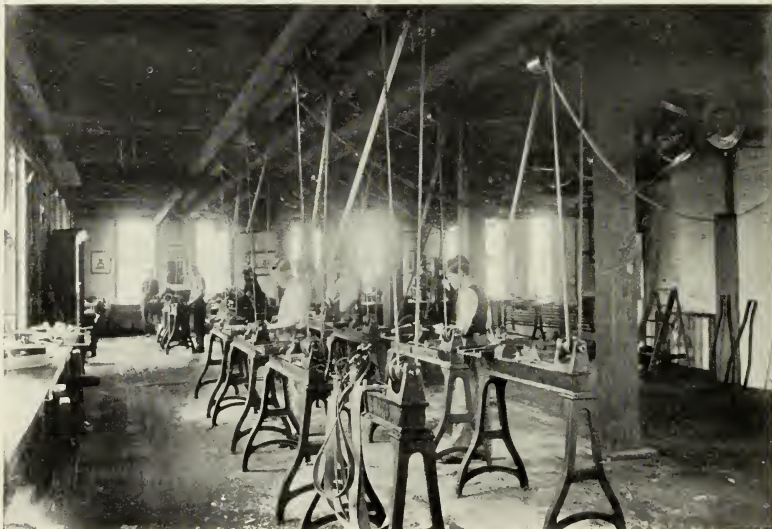
WINTER SHORT COURSE, TEN WEEKS.

Begins January 2,

Ends March 9, 1906

REGULAR COURSE, FOUR YEARS.

SPECIAL COURSE, TWO YEARS.



THE SHOP.

## ANNOUNCEMENT.

**A**GRICULTURE is a complex business and the young man who intends to become a farmer needs, and can use to good advantage just as much education and special training as he can obtain. No business nor profession has to deal with more varied or difficult problems, yet in the past how few farmers have had special training to meet them; and if failure resulted, in nine cases out of ten the business has been blamed instead of the man or his lack of training. Today the opportunities for young men in agriculture are equal to those in almost any other business or profession provided equal ability, training and business management are given to it. Examples of the truth of this statement can easily be found on the Delaware-Chesapeake Peninsula.

The courses offered at Delaware College intended to fit young men for work in Agriculture vary in length from ten weeks to four years. To the young man who can afford the time and money, the four-year course is strongly recommended, but to those whose time is limited the Winter Short Course offers information and training, that it would take years to gain from reading, observation and home study.

The Winter Short Course in Agriculture is offered during ten weeks each winter when farm work is least urgent, and is intended for those who cannot leave their work at any other time, but who, realizing that farming like every other business needs special preparation, wish to fit themselves for successful work in the occupation they have chosen. The instruction given is all thoroughly practical, and deals primarily with subjects of the most direct and immediate value to the farmer and fruit grower. As much time as possible is spent in laboratory work and practicum, that is, students learn to do by doing. Opportunities for work along special lines are offered, and students can so arrange their course as to give most of their time to subjects that are of special interest and importance to them.

The Instructors in the Short Course in Agriculture are all men of excellent scientific training and wide experience in their respective lines of work. Ten weeks spent in study or investigation under their direction cannot fail to be of inestimable value to any intelligent and progressive young man, and a better investment of time and money could hardly be made.

The State Grange of Delaware has signified its approval of the Short Course in Agriculture at Delaware College by offering to pay all the necessary expenses of one student. The student is to be chosen from and by the Subordinate Grange making the largest percentage of increase in membership during the present Grange fiscal year. To the Grange making the second and third largest percentage of increase in membership \$25.00 and \$10.00 is offered respectively.

## COURSES OF INSTRUCTION IN THE SHORT COURSE.

### Agricultural Chemistry.

Prof. C. L. Penny

A short course of lectures on some of the more important facts and principles of chemistry with special reference to agriculture. These lectures will treat of the elements and compounds occurring in soils, feeds, and fertilizers, with demonstrations and experiments in the laboratory. The relations of chemical laws to scientific agriculture as well as to the daily farm life will be considered.

Daily lectures or laboratory work during the first four weeks of the course.

### Soils and Fertilizers.

Prof. J. A. Foord

The application of chemistry to the care and improvement of the land. Soil fertility, upon what it depends, and how to maintain and increase it. The purchase and economical use of commercial fertilizers, amendments, and farm manures.

Daily lectures, recitations, or laboratory work during the last six weeks of the course.



THE TIME TO SPRAY FOR THE CODLING MOTH.

### Economic Entomology.

Prof. C. O. Houghton

Lectures, recitations and occasional laboratory work on the insects injurious to orchard, garden and field crops. An account of the external and internal anatomy of insects will be given ; of their life histories ; of their injury to the various crops ; and of the means of holding them in control. Specimens of the insects under consideration will be placed before the class for examination.

Students whose time will permit may take special laboratory work in structure and classification of insects.

Three exercises a week.



## Horticulture.

Prof. C. P. Close

**Fruit Culture.**—In this work the student receives instruction in the propagation of fruits by seeding, budding, grafting, layering, and cuttings; in tree, vine, and bush planting and pruning; in the location, care, and cultivation of orchards and small fruit plantations; and in the choice of varieties for Delaware.

One afternoon each week is given to laboratory and orchard work.

Three exercises a week.

**Vegetable Gardening.**—This work includes the history and improvement of garden vegetables; their propagation and care both out of doors and in the forcing house; the special requirements of each kind, and the most desirable varieties to grow for home use and for market. Special attention will be given to hot bed construction and management.

Two exercises a week.

## Plant Diseases. Prof. F. D. Chester and Mr. H. S. Jackson

How to preserve the plant in health and thus render it resistant to disease; relation of fungi to plant diseases; legislation against diseases; preparation and application of fungicides; consideration of diseases of special crops, as cereals, small fruits, orchard fruit, and vegetables.

One lecture per week, with laboratory work on specimens of diseased plants and in the preparation and application of fungicides.



MILK TESTING LABORATORY.

## Farm Dairying.

Prof. J. A. Foord

The production and care of milk and its manufacture into other products; butter and cheese making; dairy bacteriology and its relation to the production of sanitary milk for the city markets. The farm dairy and its equipment.

Students will be given practice in making the Babcock test for fat in milk; also in testing for adulteration and acidity.

Two lectures or recitations and one practicum each week.

## Animal Husbandry.

Prof. J. A. Foord

The history and development of our modern breeds of live stock; the principles of breeding, feeding, care and management; methods of improving farm stock.

Students will be given practice in judging and the use of the score card, also in tracing pedigrees and in formulating rations for farm animals.

Three lectures or recitations and one practicum each week.

## Animal Diseases.

Dr. H. P. Eves

Study of the structure and uses of the organs of domestic animals; the action and use of medicines. Lectures upon specific diseases, in which special stress is laid upon methods of prevention; determination of age of animals; methods of treating emergencies and accidents. How to keep animals healthy.

Lectures, with clinics when subjects can be obtained.



WORK OF A SHORT COURSE STUDENT, BLACKSMITH SHOP 1905.

## **Shop Work.**

**Mr. Lee O. Willis**

Practical instruction in the handling and care of tools for working wood.

Blacksmithing and forge-work ; heating and welding iron and steel.

One afternoon each week.

## **Agricultural Machinery.**

**Profs. M. Van G. Smith and J. A. Foord**

Practical work in taking down and putting together different agricultural machines, with talks upon the principles involved. Power for farm purposes with practice in running small engines.

One exercise each week.

## **Farm Bookkeeping.**

**Prof. J. A. Foord**

Practical work in keeping farm accounts. A simple system by which the profits and losses of the farm may be traced to their original sources.

One exercise each week.

## **Poultry.**

**Prof. J. A. Foord**

The different breeds of poultry and the purposes for which each breed is best adapted. Feeding and care of stock for egg production and market. Construction of poultry houses, incubators and brooders. Two exercises a week.

Lectures and practical talks will be given from time to time by specialists upon topics of general interest.

Students are also admitted free to a course of University Extension Lectures held at the College during the winter.

## **Requirements for Admission.**

Satisfactory evidence of good moral character is the only requirement for entrance to the Short Course.

Applicants should be at least sixteen years of age and have a common school education. Those intending to take this course are urged to review their school work in English and Arithmetic.

Application for admission should be made as early as possible on the blank at the end of this circular.



**Expenses.**

Tuition is free to residents of Delaware. Books may cost from \$3.00 to \$5.00. Board and rooms may be obtained in private families from \$4.00 to \$5.00 per week.

Board in the College Club costs from \$3.50 to \$3.75 per week.

Students who wish to can no doubt keep the total expense of the course down to \$50.00.

For further information about any of the Agricultural Courses or with reference to any matter of interest to the farmers of the State, address:

J. A. FOORD,  
Professor of Agriculture,  
Newark, Delaware.

For information concerning the courses in Classics, Science or Engineering, address :

President, GEO. A. HARTER,  
Newark, Delaware.

**Application for Admission to the Short Course in  
Agriculture at Delaware College.**

Name of applicant, . . . . .

Date of birth, . . . . .

P. O. address, . . . . .

Name of parent or guardian, . . . . .

Address of parent or guardian, . . . . .

Name of school last attended, . . . . .

Common branches studied, . . . . .

. . . . .